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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,062	10/29/2003	Reinhold Noe	WRN-8378	9734

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LERNER AND GREENBERG, P.A.  
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EXAMINER
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CORRIELUS, JEAN B

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/698,062

Applicant(s)

NOE, REINHOLD

Examiner

Jean B. Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 4,9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/20/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1-10 are objected to because of the following informalities:

Claim 1, line 4, "a" should be replaced by "the or said" so as to make use of antecedent in line 1. Line 13 "a factor" should be replaced by "said factor" so as to make use of antecedent in line 6. Claim 2, line 14, "can represent" should be replaced by "represents"; line before the last, "a" should be replaced by "the or said" so as to make use of antecedent. The same comment applies to claim 4, line 1 and line 8, claim 5, line 1, claim 7, last line. Claim 4, line 6, "the" should be replaced by "an". Claim 7, line 1, "which" should be replaced by "wherein the step of dividing". Claim 7, lines 11-12, "can represent" should be replaced by "represents". Claim 8, line 1, "which" should be replaced by "wherein the step of dividing". Claim 9, line 1, "which" should be replaced by "wherein the regenerative frequency dividing". Claim 9, line 3, "to be" should be deleted. As per claim 10, see claim 9. ". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 5 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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4. The term "so large" in claim 2 is a relative term which renders the claim indefinite. The term "so large" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

As per claim 7, see claim 2.

As per claim 5, "an arbitrary order" renders the claim vague and indefinite because the subsequent recitation in line 9 requires that the complex conjugate be generated prior to the power raising. Hence the power unit has to be connected downstream to the complex conjugator rather than in an arbitrary order.

### ***Drawings***

5. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. In addition, **descriptive language should be used to identify each element of the drawing**. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not

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clear, concise and exact. **The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph.** Examples of some unclear, inexact or verbose terms used in the specification are: see page 25, line 7 and line before the last.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujino US Patent No. 4,461,014 in view of Richard et al US patent No. 7,085,501.

As per claim 1, Fujino discloses a carrier generating method and apparatus (see for instance fig. 2) comprising: an input (1) for receiving a received a signal; a frequency multiplier (2) for multiplying a frequency of the received signal by a factor of N, and thereby generating a frequency-multiplied signal; a filter (3) connected to said frequency multiplier (2), said filter (3) filtering the frequency-multiplied signal to generate a filtered frequency-multiplied signal; and divider 4 coupled to a shifter 6 considered as the claimed "intradyne frequency divider" connected to said filter (3), said circuit (4 and 6) "intradyne frequency divider" dividing the frequency of the filtered frequency-multiplied signal by a factor of N, thereby generating a carrier signal from the filtered frequency-multiplied signal, and said circuit (4 and 6) "intradyne frequency divider" undertaking more than one state change (i. e low and high) see table 1 and fig. 6(b)

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while changing a phase of the carrier signal by  $2\pi/N$  (90 degrees see table 1).

However, Fujino does not teach that the receiver is an intradyne receiver configured to process an intradyne signal. As evidence by Rickard et al, It is well known to configure a receiver to received and process an intradyne signal see for instance, col. 1, lines 34-44. Given that fact, it would have been obvious to one skill in the art to configure Fujino to receive an intradyne signal as intradyne receivers includes less complex control loop as oppose to other conventional receivers. See Rickard et al col. 1, lines 39-40.

As per claim 3, note that the output of the divider is regenerated carrier signal. Hence the divider has to be a regenerative divider. See col. 2, lines 1-9 and col. 3, lines 22-26.

As per claim 6, see claim 1.

As per claim 8, see claim 3.

***Allowable Subject Matter***

9. Claims 2, 5, and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.


10. Claims 4, 9, 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jean B Corrieus  
Primary Examiner  
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2-15-07